Introduction
The United Arab Emirates (UAE), a federation of seven emirates (Abu Dhabi, Dubai, Sharjah, Ajman, Umm al-Quwain, Ras al-Khaimah and Fujairah), is located in the southeast of the Arabian Peninsula on the Persian Gulf, bordering Oman and Saudi Arabia.

It has about a 675 Km. coastline including the large number of islands offshore. Its coastline has a variety of sensitive ecosystems: coral reefs, salt marshes, ‘khors’ (tidal inlets), mangroves, natural lagoons and creeks and seagrasses, which provide habitats, nurse grounds and food source for a large variety of organisms.

Concentrations of shore, wading and diving birds can be found in the coastal waters of the country. There are a number of conservation priority species that nest or breed in the region including species of cormorant, heron, plovers, terns and flamingos. Many Important Bird Areas and Middle East Wetland Inventory Sites provide nesting and feeding habitat for thousands of migrating and resident birds. The offshore islands are also important for nesting seabirds.

Four species of sea turtles occur in the waters of the UAE, which includes the Loggerhead (Caretta caretta), the Leatherback (Dermochelys coriacea), the Hawksbill (Eretmochelys imbricata) and the Green (Chelonia mydas). The two latter, nest in UAE waters. A fifth species, the olive ridley turtle (Lepidochelys olivacea) is certainly a visitor to UAE waters as it nests in neighbouring Oman.

UAE waters also host a great variety of dolphins and whales species. The waters around islands of Murawah and Bu Tini are home to the world’s second largest population of dugongs.

Oil spills present a significant risk to the United Arab Emirates. The UAE’s proven oil reserves make up almost one-tenth of the world’s total, with about 85 percent of the oil located in the Emirate of Abu Dhabi. Principal offshore oil fields are Umm Shaif, Lower Zakum, Upper Zakum, Al Bunduq and Abu al-Bukhoosh. The main onshore fields include Asab, Bab, Bu Hasa, Sahil and Shah. The majority of the oil is exported via ship. About 90 per cent of the country’s gas reserves are also located in Abu Dhabi and the Khuff reservoir beneath the oil fields of Umm Shaif and Abu al-Bukhoosh ranks among the largest single gas reservoirs in the world. Dubai and Ash Shāriqah also have significant reserves. The main fields are offshore: Fateh, Southwest Fateh and two smaller fields, Falah and Rashid. The only onshore deposit is the Margham field. Fujarah on the east coast of the UAE has become one of the world’s largest bunkering facilities, servicing tankers moving in and out of the Gulf. Moreover, surface currents in the eastern Arabian Gulf move in counterclockwise gyre, bringing oil that has been spilled in the lower Gulf waters to the UAE coast.

Regional Seas
Arabian Gulf
Gulf of Oman

Past experience
The UAE gained some experience in responding to spills arising from the Iran/Iraq war (1980-88) although its coastline was not seriously affected. Oil slicks threatened the coastal and marine habitats all along the Arabian coastline also during the Iraq/Kuwait war (1991), and the country was affected in the conflict’s aftermath. The death of two million seabirds was reported (source: Fisheries Department of the Ministry of Environment and Water).

United Arab Emirates has experience major other spills including the bunker barge AKARI (1987), spilt 1000 tonnes of fuel oil after being beached at Jebeli Ali, the barge PONTOON 300 (1998) which lost intermediate fuel oil (IFO) after becoming swamped by the heavy seas from the north and later on sank off the coast of
Ajman and the SEKI (1994), which spilt 16,000 tonnes of crude after a collision off Fujairah causing disruption in local fisheries. The spill lapped up onto the shores of the six islands nestled in the Emirate’s complex estuary system, home and breeding ground for flamingos, herons, gulls and assorted migratory birds as well as a feeding area for fish. Mangroves were reported to be polluted. The AL JA’ZYA 1 sank off the coast of Abu Dhabi (2000) releasing 400 tonnes of heavy fuel oil and the ZAYNAB tanker sunk off Jebel Ali, Dubai spilt 600 tonnes of heavy fuel oil (2001).

Response: the role of the authorities
A National Contingency Plan is in place since 2002. Each of the 7 Emirates of the Federation has its own Oil spill Response Plan in place as well. In addition, a draft Area Contingency Plan for the Abu Dhabi offshore area has been developed for the FEA by the mutual aid organisation, Abu Dhabi Emergency Support Committee of Offshore Operations (ADESCO).

Oil pollution in the federal UAE is the responsibility of the Federal Environment Agency (FEA) of the Ministry of Environment & Water, with assistance from the Frontier & Coast Guard Service of the Ministry of Interior and the Armed Forces. In the case of a minor oiled wildlife incident in any Emirate, the Emirates’ Environmental Agencies would respond, which in turn will be coordinated by FEA. In Abu Dhabi, the competent authority is the Environment Agency (EAD); in Sharjah, the Pollution Control Section of the Environment and Protected Areas Authority (EPAA); in Ra’s al-Khaimah, the Environmental Protection and Development (EPDA); in Dubai, the Marine Environment and Sanctuaries unit, Environment Protection & Safety Section of the Environment Department. If a major spill seriously affected more than one Emirate, the FEA will take overall responsibility of the spill.

Abu Dhabi Coastline Oil Spill Protection Priorities Atlas is currently being updated. Plans are underway to produce an atlas for the Northern Emirates.

Several local oil companies and port authorities also have contingency plans. The Abu Dhabi National Oil Company (ADNOC), which is the largest operator, has revised and strengthened its spill response strategy to assure preparedness with their operations in all of their offshore platforms.

Oiled wildlife response
Formal guidelines?
UAE does not have an oiled wildlife response plan in place.

Response objectives and strategy
It is unclear at present how an oiled wildlife response would be organised.

Euthanasia or rehabilitation?
The authorities would allow the rehabilitation of oiled wildlife. Abu Dhabi’s National Avian Research Center follows the published guidelines of the International Union for Conservation of Nature and Natural Resources (IUCN) to rehabilitate and release injured wildlife.

Impact assessment
A National Committee for Marine Mortality has been established including representatives from the Federal Environment Agency, the Ministry of Environment and Water, the Faculty of Sciences and the Faculty of Food Sciences (UAE University). The Committee has the following responsibilities:
• Provide scientific and technical advice on marine mortalities to concerned authorities in the country.
• Manage marine mortality crises.
• Supervise the marine mortality reporting processes.
• Prepare the national annual report on marine mortalities.
• Identify experts in the various fields relevant to the assessment of the marine mortality phenomena.
Dead seabirds will be collected and made available for scientific impact assessment by the Abu Dhabi’s National Avian Research Center (NARC) before they will be disposed of. Marine mammals and sea turtles will be collected and brought to the Marine Environment Research Center (MERC). MERC has done a number of experiments to study the effect of oil on the survival and growth of mangrove seedlings. Necropsies most likely will also be performed at the Central Veterinary Research Laboratory, in Dubai.

Notification and early response
The Frontier & Coast Guard Service and Port Authority will notify to the Federal Environment Agency (FEA) of the Ministry of Environment. The Ministry will notify the local district authority(-ies) in question. FEA has published online a Report Form for Pollution Incidents in the Marine Environment.

Wildlife responders
United Arab Emirates has a great number of avian veterinarians, highly qualified and experienced in all aspects of avian medicine and surgery, that most likely can be called out if an oiled wildlife incident occurs.

In Abu Dhabi there are two major centers affiliate of the Environment Agency Environment Agency Abu Dhabi (EAD) that deal with large amount of issues related to wildlife, including rehabilitation and treatment of birds: the Abu Dhabi’s National Avian Research Center (NARC) and Abu Dhabi Falcon Hospital. The latest has an emergency service 24 hours.

Also in Abu Dhabi, the Marine and Terrestrial Environment Research Centers (MERC and TERC) play a major role in the preservation and rehabilitation of wildlife in protected areas. MERC develops methods of rearing sea turtles hatchlings in captivity and release them all tagged, surveys and monitoring of threatened species including dugongs and develops conservation tools and plans, produces habitat inventory and mapping with baseline surveys of all essential habitats and carries out post release migration studies. In an oiled wildlife incident, most likely would be responsible for treating sea turtles and marine mammals. TERC also deals with migratory water birds.

In Shariah Emirate, the breeding Centre for Endangered Arabian Wildlife (BCEAW) of the Environment and Protected Areas Authority (EPAA) treats also injured wildlife. Captive breeding facilities and expertise are available. The veterinary department of the BCEAW is involved in all aspects of animal welfare. The BCEAW has also become a temporary home for a wide variety of other animals, which have been imported illegally and subsequently confiscated. Confiscated birds, are sent to the National Avian Research Centre (NARC) to ensure that are housed in suitable facilities.

In Dubai Emirate, the Burj al Arab Aquarium jointly together with Wildlife Protection Office (WPO), would most likely offer involvement on a voluntary basis. The facilities are managed by an experienced team and could be temporarily adapted to assist with the response. At the Jumeirah Turtle Rehabilitation Unit, injured seaturtles (green and hawksbill) are treated and rehabilitated, with veterinary support provided by Al Wasi Veterinary Clinic and laboratory work by the Central Veterinary Research Laboratory. Initial care is given at the Burj Al Arab by the aquarium team. A tagging programme for the rehabilitated sea turtles is carried out. Cetacean strandings have occurred occasionally. Corpses are submitted for necropsies to the Central Veterinary Research Laboratory.

A number of national NGOs should be considered as relevant for the response to a future oiled wildlife incident, would provide assistance through its expertise and knowledge of the species and habitats of the country coast. The Emirates Wildlife Society (EWS)-World Wildlife Fund for Nature (WWF-UAE), the Emirates Natural History Group (ENHG) with its three branches in Al Ain, Dubai and Abu Dhabi, the Emirates Marine Environment Group (EMEG) and the Emirates Diving Association. IFAW has an office in United Arab Emirates.

Cooperation between stakeholders
n.a
UNITED ARAB EMIRATES

Permanent facilities
There are permanent facilities at the Burj al Arab Aquarium, the Abu Dhabi’s National Avian Research Center and the Abu Dhabi Falcon Hospital.

Current processes
n.a

Documentation and references
General references
ITOPF Country Profile
UNESCO Office in Doha (Qatar) has published in November 2003 an electronic book "Tasks for coastal resources assessments and oil spill sensitivity mapping in the Arab States of the Gulf".

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